REMARKS

Claims 1-36 are all the claims pending in the application. Claims 13-26 and 28-36 stand withdrawn from consideration. Claims 1-6, 11-12 and 27 stand rejected. Claims 1, 4, 11 and 27 are amended. Support for the amendments appears at paragraphs [0071], [0080] and [0084]-[0086] of the original application.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

Claim 1 stands rejected under § 112, second paragraph as being indefinite. In particular, the Examiner contends this claim fails to distinctly claim the subject matter because the infringement depends on the object worked on.

Applicants submit the present amendment to claim 1 obviates this rejection.

Claim Rejection - 35 U.S.C. § 103(a)

Claims 1-6, 11-12 and 27 stand rejected under § 103(a) as being unpatentable over Perrin et al. (US 6,281,469). This rejection is traversed for at least the following reasons.

Claim 1 recites, *inter* alia, a conveyor that relatively passes said workpiece through outside of said discharge space under said pressure in the vicinity of atmospheric pressure in a direction orthogonal to the extending and flowing directions so as to cross a side opposite to said introduction port side with respect to said jet port.

Applicants submit Perrin fails to disclose the above noted features of claim 1. For instance, Perrin's substrate 4 is only deposited on the bottom of electrode arrangement 20 (col. 8, lines 2-3). The substrate 4 is never relatively passed through with respect to the discharge space. The discharge space of Perrin is generated between the upper electrode arrangement 10 and the bottom electrode arrangement 20 (col. 4, lines 34-35). Hence, the substrate 4 is deposited inside of the discharge space, not outside of the discharge space. Further, Perrin is a vacuum plasma

apparatus (col. 4, lines 42-43). The discharge space is not under the pressure in the vicinity of atmospheric pressure. Those of skill in the art recognize that the discharge can be generated in a vacuum pressure more easily than under the pressure in the vicinity of atmospheric pressure. In the vacuum space, a discharge distance corresponding to the width of the substrate like claim 1 can be obtained without sub-division, when one electrode is disposed at the position corresponding to the one end part of the substrate and the other electrode is disposed at the position corresponding to the other end part of the substrate. But when operated under the pressure in the vicinity of the atmospheric pressure, the discharge cannot be even generated in that configuration. Sub-division of electrode arrangement 10 in the vacuum pressure results in increasing the plasma density. But, sub-division under the pressure in the vicinity of atmospheric pressure does not increase the plasma density. Accordingly, one of ordinary skill in the art would not be motivated to modify Perrin to operate with the pressure in the vicinity of the atmospheric pressure.

Additionally, in the rejection, the examiner asserts Perrin discloses the claimed invention except for the shape of electrode member being square instead of rectangular. As reason to modify, the Examiner alleges it would have been an obvious matter of design choice to alter the shape of electrode members, since such a modification would have involved a mere change in the shape of a component. A change of shape is generally recognized as being within the ordinary level of skill in the art. (*Office Action*, pages 7-8).

However, claim 1 also recites, *inter alia*, the elongate electrode members are arranged in a line in the extending direction. The combination of "elongate" and "arranged in a line" in the extending direction is not obvious, because the bar-like sub-electrodes 12 are arranged in a direction orthogonal to the extending direction in Perrin, as shown Fig. 14. Perrin also teaches

the electrode arrangement 10 is sub-divided in two directions x and y (col. 5, line 43). In that case, each of the sub-electrodes 12 is a regular polygon, e.g. a square (Fig. 15), an equilateral triangle (Fig. 16) or a regular hexagon (Fig. 17). It seems that regular polygons can easily get an averaged effect of plasma discharge (col. 2, lines 66-67). Consequently, Applicants submit one of ordinary skill in the art would not modifying the shape of the sub-electrode 12 into irregular polygonal shape, e.g. rectangular, because such a modification is not merely a change in shape..

Additionally, in the rejection, the Examiner asserts that Perrin discloses, in col. 6, lines 50-55, one of the electrode can be connected to ground (page 4, line 13 of the *Office Action*). However, Perrin discloses one of the electrode arrangements 10, 20, not one of the sub-electrodes 12, may be connected to reference potential. Perrin also provides "if both electrode arrangements 10 and 20 are e.g. driven on RF potentials and none is linked to a reference potential as e.g. to ground potential, it is absolutely possible to subdivide both electrode arrangements 10 and 20 into sub-electrodes (col. 5 lines 53-57)". This means if one of the electrode arrangements 10 and 20 is linked to ground potential, the grounded electrode arrangement cannot be subdivided into sub-electrodes. That is to say, none of the sub-electrodes 12 can be grounded. The discharge is generated between each sub-electrode 12 and the grounded electrode arrangement 20. Perrin does not attempt to generate a discharge between neighboring sub-electrodes 12. Perrin never discloses "the other of said polarities being a grounding pole" as specified in claim 1. Consequently, Perrin also fails to disclose this feature.

Thus, Applicants submit claim 1 is allowable for at least this reason. Additionally, Applicants submit because claims 4, 11 and 27 recite similar features, these claims are allowable for the same reasons set forth above with regard to claim 1. Additionally, Applicants submit claims 2-3, 5-6 and 12 are allowable, at least by virtue of their dependencies.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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